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PATENT

Attorney Docket No. JP920000112US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Takatoshi Tsujimura

Serial No: 09/681,643

Filed: May 15, 2001

For: METHOD AND APPARATUS FOR
MANUFACTURING ACTIVE MATRIX DEVICE
INCLUDING TOP GATE TYPE TFT

Examiner: William D. COLEMAN

Art Unit: 2823

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

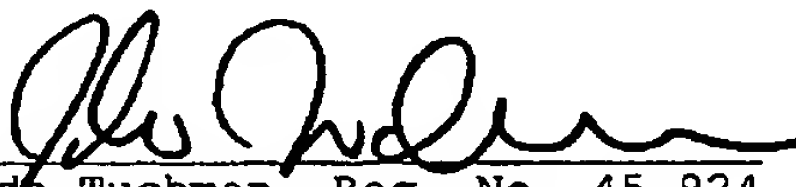
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed concurrently with a notice of appeal and before filing of an appeal brief.

The review is requested for the reasons stated on the attached sheets totaling five (5) or fewer pages.

Respectfully submitted,

Dated: September 19, 2005


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REASONS FOR REQUEST FOR REVIEW

To establish a *prima facie* case of obviousness under 35 USC §103, the prior art references must teach or suggest all the claim limitations. See MPEP 2143 et seq.

Claims 1-10 and 19-21 are rejected under 35 USC §103 as obvious over U.S. Patent No. 6,072,193 to Ohnuma et al. ("Ohnuma") in view of U.S. Patent No. 6,066,519 to Gardner et al. ("Gardner").

Claim 1 recites, in part, "forming an oxide film on an inner wall of a CVD processing chamber . . . wherein forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P." Independent claims 19 and 22 recite similar claim elements.

The Final Office Action alleges Ohnuma teaches wherein forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P. Final Office Action, page 6. The Final Office Action, however, contradicts itself, stating, "Ohnuma fails to disclose forming an oxide film on an inner wall of a CVD processing chamber."

The Applicant respectfully submits that Ohnuma does not teach or suggest wherein forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P. As recognized in the Final Office Action, Ohnuma fails to disclose forming an oxide film on an inner wall of a CVD processing chamber. Therefore, Ohnuma cannot possibly teach forming an oxide film on the an inner wall of the CVD chamber before doping the source and drain electrodes with P, if it does not teach forming an oxide film on an inner wall of a CVD processing chamber in the first place.

The Final Office Action cites Gardner as teaching forming an oxide film on an inner wall of a CVD processing chamber at column 6, lines 8-14. Gardner discloses, "The chamber may be cleaned by, for example, increasing the flow of NF₃ through the chamber in order to remove any residual oxide on the showerhead and/or chamber walls." Gardner, column 6, lines 10-13 (emphasis added). It is respectfully submitted that Gardner does not teach

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forming an oxide film on an inner wall of a CVD processing chamber, but rather removing an oxide layer on chamber walls that may have formed as a byproduct of substrate processing. Such a teaching cannot be equated to the limitation of forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P, as recited in the pending claims.

The Final Office Action specifically points to Fig. 3, items 306 and 308 of Gardner as teaching the limitation of forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P. The Applicant respectfully disagrees with such an interpretation of Gardner. Gardner clearly states, "A layer of oxide 403 is then formed over the substrate 401 using an oxide source showerhead as indicated at block 306." and "A second dielectric layer 405 may optionally be formed over the outgassed oxide layer 403 as indicated in block 308." Gardner, column 4, lines 54-55, column 5, lines 14-15 (emphasis added). Again, such a teaching cannot be equated to the limitation of forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P, as recited in the pending claims.

Despite the Final Office Action's argument that the Applicant is attacking references individually, Gardner is not cited as teaching wherein forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P, and the Applicant respectfully submits that Gardner does not teach or suggest such a limitation. This fact is not in dispute, as the Examiner argues, "Gardner teaches forming an oxide on an inner wall of a CVD processing chamber."

Additionally, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See MPEP 2143 et seq. Obviousness cannot be established by combining prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the

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manner suggested by an Examiner does make the modification obvious unless the prior art suggested the desirability of the modification. *Id.*

In the present case, the advantage alleged by the Examiner to justify the proposed combination of Ohnuma and Gardner does not stand up to close scrutiny. More particularly, the examiner has not explained, and it not evident, why a person of ordinary skill in the art would have found it obvious to reconstruct Ohnuma to form an oxide film on an inner wall of a CVD processing chamber, wherein forming the oxide film on the inner wall of the CVD processing chamber is performed before doping the source and drain electrodes with P.

In this regard, neither Ohnuma nor Gardner express any appreciation of seasoning or pre-coating the inner wall of the processing chamber with an oxide film so as to prevent the chemical species containing P from being stuck to the inner wall thereof, as attributed in the Applicant's specification.

In this light, it is apparent that the only suggestion for combining Ohnuma and Gardner in the manner advanced by the Examiner stems from hindsight knowledge impermissibly derived from the Appellant's disclosure.

Thus, for at least these reasons, it is respectfully submitted that a *prima facie* case of obviousness under 35 USC §103 for claims 1, 19 and 22 has not been made.

Claims 2-10, 17, 18 and 22 are dependent on and further limit claim 1. Since a *prima facie* case of obviousness has not been established for claim 1, the rejections of claims 2-10, 17, 18 and 22 are also improper.

Claims 20 and 21 are dependent on and further limit claim 19. Since a *prima facie* case of obviousness has not been established for claim 19, the rejections of claims 20 and 21 are also improper.